#### **APPENDIX B**

Sequence Comparison — Mouse TERT vs. Mouse RNA component

mRNA

linear

ROD 01-DEC-2000

3426 bp

# Mouse hTERT mRNA sequence LOCUS AF051911

DEFINITION Mus musculus telomerase reverse transcriptase mRNA, complete cds. **AUTHORS** Greenberg, R.A., Allsopp, R.C., Chin, L., Morin, G.B. and DePinho, R.A. TITLE Expression of mouse telomerase reverse transcriptase during development, differentiation and proliferation Oncogene 16 (13), 1723-1730 (1998) JOURNAL 1 gtgggaggcc catcccggcc ttgagcacaa tgacccgcgc tcctcgttgc cccgcggtgc 61 gctctctgct gcgcagccga taccgggagg tgtggccgct ggcaaccttt gtgcggcgcc 121 tggggcccga gggcaggcgg cttgtgcaac ccggggaccc gaagatctac cgcactttgg 181 ttgcccaatg cctagtgtgc atgcactggg gctcacagcc tccacctgcc gacctttcct 241 tccaccaggt gtcatccctg aaagagctgg tggccagggt tgtgcagaga ctctgcgagc 301 gcaacgagag aaacgtgctg gcttttggct ttgagctgct taacgaggcc agaggcgggc 361 ctcccatggc cttcactagt agcgtgcgta gctacttgcc caacactgtt attgagaccc 421 tgcgtgtcag tggtgcatgg atgctactgt tgagccgagt gggcgacgac ctgctggtct 481 acctgctggc acactgtgct ctttatcttc tggtgccccc cagctgtgcc taccaggtgt 541 gtgggtctcc cctgtaccaa atttgtgcca ccacggatat ctggccctct gtgtccgcta 601 gttacaggcc cacccgaccc gtgggcagga atttcactaa ccttaggttc ttacaacaga 661 tcaagagcag tagtcgccag gaagcaccga aacccctggc cttgccatct cgaggtacaa 721 agaggcatct gagtctcacc agtacaagtg tgccttcagc taagaaggcc agatgctatc 781 ctgtcccgag agtggaggag ggaccccaca ggcaggtgct accaacccca tcaggcaaat 841 catgggtgcc aagtcctgct cggtcccccg aggtgcctac tgcagagaaa gatttgtctt 901 ctaaaggaaa ggtgtctgac ctgagtctct ctgggtcggt gtgctgtaaa cacaagccca 961 gctccacatc tctgctgtca ccaccccgcc aaaatgcctt tcagctcagg ccatttattg 1021 agaccagaca tttcctttac tccaggggag atggccaaga gcgtctaaac ccctcattcc 1081 tactcagcaa cctccagcct aacttgactg gggccaggag actggtggag atcatctttc 1141 tgggctcaag gcctaggaca tcaggaccac tctgcaggac acaccgtcta tcgcgtcgat 1201 actggcagat gcggcccctg ttccaacagc tgctggtgaa ccatgcagag tgccaatatg 1261 tcagactcct caggtcacat tgcaggtttc gaacagcaaa ccaacaggtg acagatgcct 1321 tgaacaccag cccaccgcac ctcatggatt tgctccgcct gcacagcagt ccctggcagg  $1381\ tatatggttt\ tcttcgggcc\ tgtctctgca\ aggtggtgtc\ tgctagtctc\ tggggtacca$ 1441 ggcacaatga gcgccgcttc tttaagaact taaagaagtt catctcgttg gggaaatacg 1501 gcaagctatc actgcaggaa ctgatgtgga agatgaaagt agaggattgc cactgqctcc 1561 gcagcagccc ggggaaggac cgtgtccccg ctgcagagca ccgtctgagg gagaggatcc 1621 tggctacgtt cctgttctgg ctgatggaca catacgtggt acagctgctt aggtcattct 1681 tttacatcac agagagcaca ttccagaaga acaggctctt cttctaccgt aagagtgtgt 1741 ggagcaagct gcagagcatt ggagtcaggc aacaccttga gagagtgcgg ctacgggagc 1801 tgtcacaaga ggaggtcagg catcaccagg acacctggct agccatgccc atctgcagac 1861 tgcgcttcat ccccaagccc aacggcctgc ggcccattgt gaacatgagt tatagcatgg 1921 gtaccagage tttgggcaga aggaageagg eccageattt cacceagegt etcaagaete 1981 tcttcagcat gctcaactat gagcggacaa aacatcctca ccttatgggg tcttctgtac 2041 tgggtatgaa tgacatctac aggacctggc gggcctttgt gctgcgtgtg cgtgctctgg 2101 accagacacc caggatgtac tttgttaagg cagatgtgac cggggcctat gatgccatcc 2161 cccagggtaa gctggtggag gttgttgcca atatgatcag gcactcggag agcacgtact 2221 gtatccgcca gtatgcagtg gtccggagag atagccaagg ccaagtccac aagtccttta 2281 ggagacaggt caccaccctc tctgacctcc agccatacat gggccagttc cttaagcatc 2341 tgcaggattc agatgccagt gcactgagga actccgttgt catcgagcag agcatctcta 2401 tgaatgagag cagcagcagc ctgtttgact tcttcctgca cttcctgcgt cacagtgtcg 2461 taaagattgg tgacaggtgc tatacgcagt gccagggcat cccccagggc tccagcctat 2521 ccaccetget etgeagtetg tgttteggag acatggagaa caagetgttt getgaggtge

2581 agcgggatgg gttgctttta cgttttgttg atgacttct gttggtgacg cctcacttgg
2641 accaagcaaa aaccttcctc agcaccctgg tccatggcgt tcctgagtat gggtgcatga
2701 taaacttgca gaagacagtg gtgaacttcc ctgtggagcc tggtaccctg ggtggtgcag
2761 ctccatacca gctgcctgct cactgcctgt ttccctggtg tggcttgctg ctggacactc
2821 agactttgga ggtgttctgt gactactcag gttatgccca gacctcaatt aagacgagcc
2881 tcaccttcca gagtgtcttc aaagctggga agaccatgcg gaacaagctc ctgtcggtct
2941 tgcggttgaa gtgtcacggt ctatttctag acttgcaggt gaacagcctc cagacagtct
3001 gcatcaatat atacaagatc ttcctgcttc aggcctacag gttccatgca tgtgtgattc

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3061 agcttcctt tgaccagcgt gttaggaaga acctcacatt ctttctgggc atcatctcca 3121 gccaagcatc ctgctgctat gctatcctga aggtcaagaa tccaggaatg acactaaagg 3181 cctctggctc ctttcctcct gaagccgcac attggctctg ctaccaggcc ttcctgctca 3241 agctggctgc tcattctgtc atctacaaat gtctcctggg acctctgagg acagcccaaa 3301 aactgctgtg ccggaagctc ccagaggcga caatgaccat ccttaaagct gcagctgacc 3361 cagccctaag cacagacttt cagaccattt tggactaacc ctgtctcctt ccgctagatg 3421 aacatg
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## Mouse telomerase RNA component sequence

LOCUS	MMU33831		590 b	p DNA	linear	ROD 07-JAN-1998
DEFINITION	N Mus musc	ulus telome	rase RNA co	mponent gen	e.	
AUTHORS	Blasco,M	.A., Funk,W	., Villepon	teau,B. and	Greider,C.	W.
TITLE	Functional characterization and developmental regulation of mouse					
	telomera					
JOURNAL	Science	269 (5228),	1267-1270	(1995)		
1	gggaagaggg	agcatttccg	caagtgctgg	gctcgaccaa	tcagcgcgcg	ccatggggta
61	tttaaggtcg	agggcggcta	ggcctcggca	cctaaccctg	attttcatta	gctgtgggtt
121	ctggtctttt	gttctccgcc	cgctgttttt	ctcgctgact	tccagcgggc	caggaaagtc
181	cagacctgca	gcgggccacc	gcgcgttccc	gagcctcaaa	aacaaacgtc	agcgcaggag
		gccgggagct				
301	ccgcggccgg	cctggggtct	taggactccg	ctgccgccgc	gaagagctcg	cctctgtcag
361	ccgcggggcg	ccgggggctg	gggccaggcc	gggcgagcgc	cgcaaggaca	ggaatggaac
421	tggtccccgt	gttcggtgtc	ttacctgagc	tgtgggaagt	gcacccggaa	ctcggttctc
481	${\tt acaacccca}$	ttcccgctgg	ggaaatgccc	cgctgcaggg	cgggccgcta	gaacctgcga
541	ctctggggaa	aggggcttcg	gtgtgagacg	gtagccagcc	aaagggtata	

### **Sequence Comparison**

Performed at the following website: http://www.ncbi.nlm.nih.gov/blast/bl2seq/bl2.html



## BLAST 2 SEQUENCES RESULTS VERSION BLASTN 2.2.5 [Nov-16-2002]

Sequence 1 lcl|seq\_1 Length 3426

Sequence 2 lcl|seq\_2 Length 590

No significant similarity was found